



Partner

SYSTEM INTEGRATION



Unilogic Technologies

AUTOMATION

Precision Assured – Through Machine Vision & Test Systems



***Machine Vision
System***



***Test &
Measurement***



***LabVIEW
Consultancy***

Unilogic Technologies Private Limited
24/1, 6th Cross, Thaneerpandal Road,
Peelamedu, Coimbatore – 641014, Tamil Nadu

+91 96598 80524 info@unilogic.in

Scan for Website



www.unilogic.in



EV Dashboard Test System

Automatically tests dashboards upon placement, detecting defects with no manual intervention, ensuring accuracy and speed.



High-Precision Visual Inspection with RGB Profiling



Automated Reporting and Traceability



Integrated UDS/CAN Protocol Communication



Customizable testing ensures tailored assessments

Features:



Detect and classify defects using diagnostic parameters accurately



It takes < 120s including visual inspection



Configurable and Parallel Testing (upto 8 Stations)



It supports both PCBA & EOL Testing (Simultaneous testing)

PCB FUNCTIONAL TESTER

The machine automates LDU and PDU testing, ensuring fast, reliable, safe validation without manual input.



Enables simultaneous testing of LDU and PDU for higher efficiency



Simulates real EV conditions to validate key vehicle functions



Tests up to 4 units simultaneously to boost throughput



Detects insulation faults and leakage using high-voltage safety testing (1400V)

Features:



High Inspection Speed (160 Parts/Hour for Both LDU & PDU)



It supports both PCBA & EOL Testing(Simultaneous testing)



Parallel and Configurable Test Stations



Integrates SQL, OPC UA, Excel for data logging and analysis



2D Camera-Based Inspection System

2D camera-based inspection systems provide high-speed visual analysis for defect detection, alignment, and measurement tasks.



- ✓ **Customizable** Inspection Parameters
- ✓ **Integration with AI & Machine Learning**
- ✓ **High-Speed** Inspection and orientation
- ✓ **Future-Ready technologies** in Action



3D Camera-Based Inspection System

3D camera inspection systems capture depth and geometry for precise, multi-angle, non-contact quality analysis.



- ✓ **Real-Time 3D** Visualization
- ✓ **Bin Picking & Robotic** Guidance
- ✓ **Supports AI/ML** Integration
- ✓ **High-Speed** Inline Inspection

Application



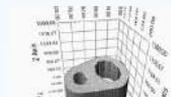
Surface Defect.



Dimensional Defects



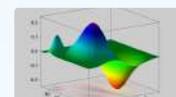
Sorting



3D Measurement



Defect Detection



Surface Analysis



360° Analysis



Barcode Reader/ OCR



Colour Detection



Packaging



Assembly Analysis



Shape Verification



Robotic Arm Interface

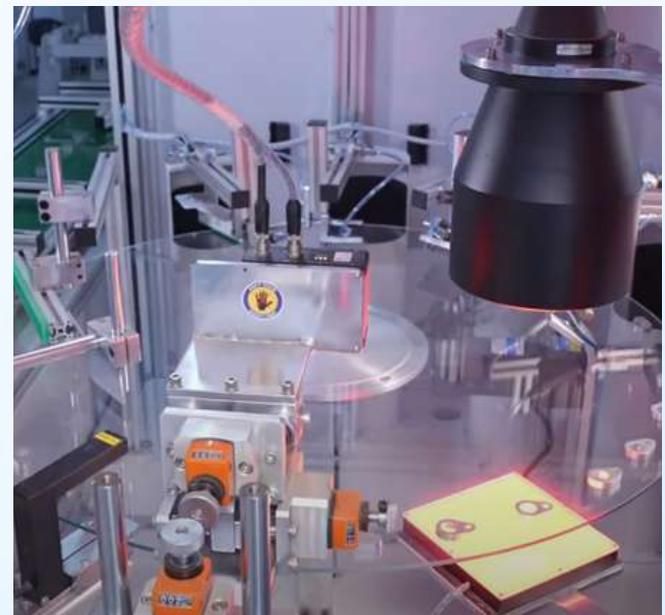
Technologies we use



- 3D Area Scan Snapshot Cameras
- 3D Laser Line Profilers
- Smart Cameras & Deep Learning Tools
- Special lenses like OD 360 / ID 360
- Verifocal Lenses
- Telecentric & Bi-telecentric Lenses
- Machine Learning & AI

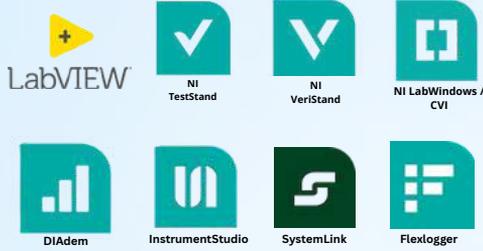


We have also worked on inspection of the Following ...

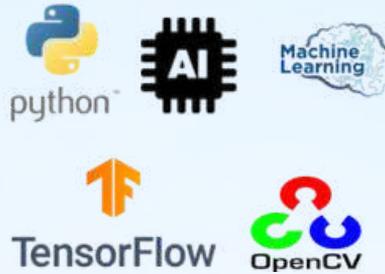


Technologies we use :

NI Platforms



AI Platforms



Web Technology



We also worked on...



High Speed 3D Inspection System

Technologies:

- High-Resolution Area Scan Cameras
- 3D Line Profilers
- Vision Software Algorithms

Features:

- Inspects 60-150 parts/min
- Easy push-button operation
- Smart Automation & Reporting




EV Dashboard EOL Test System

Technologies:

- High-Resolution Area Scan Cameras
- UDS/CAN Communication Protocols
- Custom RGB Display Testing Software

Features:

- Parallel & Sequential Testing Modes
- Multi-Level User Authentication
- Report & Image Logging , analytics




Automotive Audio System

Technologies:

- NI Sound PXI Cards
- CAN Communication Protocol
- Hardware-in-the-Loop (HIL) Simulation

Features:

- Multichannel simulation with control
- Loopback and impedance checks
- Repeatable regression function tests




Bin Picking Robot

Technologies:

- High-Resolution Area Scan Cameras
- Advanced Machine Vision Algorithms
- Precision Indexing with Automation Control

Features:

- AI-Based Part Detection
- Adaptive Gripping System
- Precision Picking with Collision Avoidance




Oil filter Inspection System



Automotive Lamp Test System



O-Ring Inspection System



Automated Pump Test System



PCBA Functional Tester



Fastener Inspection System

Our Valuable Clients :

